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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/489,364	01/21/00	VARMA S	10674/13

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EXAMINER	
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ART UNIT	**PAPER NUMBER**
2164	2

DATE MAILED: 03/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/489,364	Varma
Examiner	**Group Art Unit**
Daniel Felten	2164

☒ Responsive to communication(s) filed on *Jan 21, 2000*

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *1-34* is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-34* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 23-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 23-34 (particularly claims 23, 30 and 33), the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-26 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nevo et al (US 5,946,666) in view of Lancaster (Journal of Investing; New York; Fall 1998).

Regarding claim 1-8, 15-20 and 26: Nevo et al discloses a method for calculating, analyzing and displaying investment data comprising the steps of: (a) selecting a sample space 74, wherein the sample space includes at least one investment data sample (see Nevo et al, fig. 5, col. 12, lines 37-38), (b) generating a distribution function using a statistical method (see Nevo et al, stock index values, fig. 5, col. 6, lines 30-57); and (c) generating a plot of the distribution (see fig. 5).

Nevo et al fails to explicitly disclose the limitation within the first claim, and subsequent aforementioned claims, relating to the use of a *re-sampled* statistical method within the steps of the notoriously old and well known *bootstrap* procedure. Lancaster discloses a method of risk assessment of foreign stocks over an extended period using a *bootstrap* approach (see Lancaster, full text). The method of re-sampling statistical data and bootstrapping are notoriously old and well known procedures within the art to forecast future events based upon past performance data. It would have been obvious for an artisan of ordinary skill at the time of the invention to integrate the re-sampled data/bootstrap method of Lancaster into the invention of Nevo et al because an artisan of ordinary skill in the art at the time of the invention would desire to more accurately assess the risk of retaining a security as an investment over a certain time period. Thus such a modification would have been an obvious expedient well within the ordinary skill in the art.

Regarding claims 9 and 10: Jackknife and Cross-validation procedures are notoriously old and well known resampling strategies conventionally used in stochastically dynamic systems (i.e., time series) for forecasting a future event(s) based upon a past body of data. Therefore OFFICIAL NOTICE is taken of Jackknife and Cross-validation procedures, as recited in the instant claims, because such employment of the Jackknife and the Cross-validation procedures to the teachings of Nevo et al in view of Lancaster would have an obvious extension in order to forecast/assess the outcome of an investment.

Regarding 11 and 22: wherein the predetermined function is one of a gross rate of return function, a maximum drawdown function and a monitor function (see Lancaster, full text).

Regarding claims 12-14, 21, 23-25, and 30-32: Nevo et al discloses, as in claims 12, 13, 23, 24, and 30-32, a method for providing statistical analysis of investment data over an information network, or the like (see on-line, col. 12, lines 27-42), comprising the steps of: (a) storing investment data pertaining to at least one investment (see col. 5, lines 65 to col. 6, line 29; and col. 12, lines 21-28); (b) receiving a statistical analysis request corresponding to a selected investment (see col. 5, lines 65-67); and, (c) based upon investment data pertaining to the selected investment, performing a statistical analysis to generate a distribution, or as in claim 13, a plot distribution (see figs. 4 and 5, col. 10 lines 40-62; and col. 12, lines 29-50);

as in claims 14 and 25, an analysis request includes at least one of an investment identifier, a bias parameter, a periods parameter, a function parameter, a replications parameter, and a plot parameter (see figs 2 and 3); and

as in claim 21, wherein the information network is the Internet (see Nevo et al. col. 5, lines 50-53, col. 12, lines 21-35).

Nevo et al fails to explicitly disclose a *resampled* analysis or a re-sampled distribution. Lancaster discloses a method of risk assessment of foreign stocks over an extended period using a *bootstrap* approach (see Lancaster, full text). The notoriously old and well known bootstrap procedure is conventionally used in re-sampling data to forecast future events based upon past performance data. It would have been obvious for an artisan of ordinary skill at the time of the invention to integrate the resampled data/bootstrap method of Lancaster into the invention of Nevo et al because an artisan of ordinary skill in the art at the time of the invention would desire to accurately assess the risk of retaining a security as an investment over a certain time period. Thus an artisan of ordinary skill in the art at the time of the invention would have recognized such a modification as providing the latest technology in monitoring investments in order for users to make sound investment decisions.

5. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nevo et al (US 5,946,666) as modified by Lancaster (Journal of Investing; New York; Fall 1998) as applied to claim 1 as discussed above, and in further view of Gross et al (US 5,283,856). The teachings of Nevo et al as modified by Lancaster have been discussed above.

Nevo et al as modified by Lancaster fails to explicitly disclose, as in claim 27, an alert rule database; as in claim 28, notifying a client upon violation of an alert rule; and as in claim 29, the client is notified by electronic mail.

Gross et al discloses a rule-based system which notifies a client of violation of a rule via electronic mail (see col. 2, lines 40-56; col. 3, lines 59-67; col. 5, lines 43-65; and col. 6, lines 22-47). It would have been obvious for an artisan of ordinary skill in the art at the time of the invention to employ the teachings of Gross et al to the teachings of Nevo et al as modified by Lancaster because an artisan of ordinary skill in the art would recognized the advantage of immediately alerting the client when the calculations of resampled data ascertain that the level of risk for a retained investment is beyond tolerable limits. Thus such a modification would be an obvious expedient well within the ordinary skill in the art.

6. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michaud et al (US 6,003,018) in view of Gross et al (US 5,283,856).

Michaud et al discloses a method of evaluating financial data performance by resampled statistical analysis. Michaud et al contemplates the use of the invention in a computer program and over the Internet (see Abstract; and col. 2, lines 28-60; and col. 6, lines 17-46).

Michaud et al fails to explicitly disclose a method for alerting financial investors regarding financial events.

Gross et al discloses an alert system which notifies a client of violation of a rule via electronic mail (see col. 2, lines 40-56; col. 3, lines 59-67; col. 5, lines 43-65; and col. 6, lines 22-47). It would have been obvious for an artisan of ordinary skill in the art at the time of the invention to integrate the teachings of Gross et al to the teachings of Michaud et al because an artisan of ordinary skill in the art would recognized the advantage of immediately alerting the client when the calculations of resampled data ascertain that the level of risk for a retained investment. Thus such a modification would be an obvious expedient well within the ordinary skill in the art.

Conclusion

7. A list of cited references appears below not relied upon in this Office Action:

US Patents:

White, Jr. (US 5,893, 069) Discloses the use of resampled data in a bootstrap method of model prediction.

Marshall (US 5,774,878), Albright et al (US 6,012,043), and Maggioncalda et al (US 5,918,217) disclose computer implemented financial advisory systems taking data from outside sources.

Ferguson et al (US 6,064,984) discloses a graphical user interface for a computer implemented financial planning tool.

Wagner (US 5,598,439) and Kassatly (US 5,790,177) Disclose methods or receiving sampled signaled data.

***Non-Patented Literature:**

1. Hansson, B., and Persson, M. "Time Diversification and Estimation Risk", Financial Analysts Journal, Vol. 56, No. 5 (Sept/Oct 2000): pages 55-62.

2. Gardner, G., and Stone, D. " Estimating Currency Hedge Rations for International Portfolios", Financial Analysts Journal, Vol. 51, No. 6 (Nov/Dec 1995): start page 6

3. Choong, N. K., and R. McLeod, Jr. " Expert, linear models, and nonlinear models of expert decision making in bankruptcy prediction: a lens model analysis", Journal of Management Information Systems, Vol. 16, No. 1, (Summer 1999): pages 189-206.

4. Mitchell, M., and Stafford, E. " Managerial decisions and long-term stock price performance", The Journal of Business, Vol. 73, No. 3 (Jul 2000): pages 287-329.

5. Kemp A. W. " Bootstrap Methods: A Practitioner's Guide", Biometrics, Vol. 56, No. 1 (Mar 2000): Start Page 317.

6. Caudill, S., and Holcombe, R. " Specification search and levels of significance in econometric models", Eastern Econonic Journal, Vol. 25, No. 3 (Summer 1999): pages 289-300

7. Deis, D., and Hill, R., "An application of the bootstrap method to the simultaneous equations model of the demand and supply of audit services", Contemporary Accounting Research, Vol. 15, No. 1 (Spring 1998): pages 88-99.

8. Magnar, L., and Steinar, E., "Exact confidence intervals generated by conditional parametric bootstrapping", Journal of Applied Statistics (May 1999): pages 447-459.

9. Coleman, M., Lynford, L., and James, F., "A newly integrated and dynamic approach to securitized real estate risk analysis and valuation" Real estate Finance, Vol. 12, No. 1 (Spring 1995): Start page 68.

10. Putnam, B. " Is the trend still my friend?" Global Investor, No. 66, (Oct 1993): Start page 21

11. Fiellin, D., and Feinstein, A. " Bootstraps and jackknives: New computer-intensive statistical tools that require no mathematical theories" Journal of Investigative Medicine, Vol. 46, No. 2, (Feb 1998): start page 22

12. Berkowitz, J., and Kilian, L.," Recent Developments in Bootstrapping Time Series", manuscript, September 25, 1996.

13. Michaud, R. " The Markowitz Optimization Enigma: Is 'Optimized' Optimal?', Financial Analysts Journal, (Jan/Feb 1989): pages 31-42

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ***Daniel S. Felten*** whose telephone number is (703) 305-0724. The examiner can normally be reached between the hours of 7:00AM to 5:30PM Monday-Thursday. Any inquiry of a general nature relating to the status of this application or its proceedings should

be directed to the Customer Service Office (703) 306-5631, or the examiner's supervisor *Vincent Millin* whose telephone number is (703) 308-1065.

9. Response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

for formal communications intended for entry, or (703) 305-0040, for informal or draft communications, please label "Proposed" or "Draft".

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to *[daniel.felten@uspto.gov]*.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1 195 OG 89.

Daniel S. Felten
March 8, 2001

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